

Notice of Allowability

Application No.

10/534,744

Examiner

Vinod Kumar

Applicant(s)

ROBERTSON ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to October 1, 2007 and interview of October 22, 2007.
2. ☒ The allowed claim(s) is/are 2, 7-9, 12-13, 15-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date SAME
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Status of Objections and Rejections

1. Office acknowledges the receipt of Applicant's amendments filed in the paper of October 1, 2007. All previous objections to the specification and drawings have been withdrawn in light of amendments to the specification and drawings filed in the paper of October 1, 2007. All previous claim objections and rejections have been withdrawn in view of claim amendments and Examiner's amendment as set forth below.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Edwin Gale (Reg. No. 28,584) on October 22, 2007.

In the claims:

Claim 2. (amended) An isolated polynucleotide comprising a nucleotide sequence characterized in that said [isolated] nucleotide sequence is selected from[:] a group consisting of a) a nucleotide sequence as shown in SEQ ID NO: 1[, or a complement thereof;] and b) a nucleotide sequence encoding a polypeptide having the amino acid sequence as shown in SEQ ID NO: 2 [with at least 95% identity to a peptide

encoded by the nucleotide sequence of a), or a full complement thereof;] wherein expression of said isolated nucleotide sequence in a transgenic plant increases an abiotic stress tolerance in the transgenic plant [or a full complement thereof encodes a protein or a part thereof, that alters a stress response and / or growth potential of a transgenic plant comprising cells. exogenously expressing said nucleotide sequence] compared to an untransformed plant of the same species.

Claims 3 and 6 have been cancelled.

Claim 7. (amended) The isolated polynucleotide [nucleotide sequence] of claim 2, characterized in that expression of said nucleotide sequence confers on said transgenic plant an [altered stress response] increased tolerance to the abiotic stress selected from the group consisting of: increased tolerance to] heat, [increased tolerance to] cold[:], [increased tolerance to] frost, and [increased tolerance to] drought[, increased tolerance to flood, increase resistance to pests, increased resistance to disease] as compared to an untransformed plant of the same species.

Claim 8. (amended) The isolated polynucleotide [nucleotide sequence] of claim 2, characterized in that expression of said nucleotide sequence also confers on said transgenic plant faster germination, faster seedling emergence or an earlier maturity [an altered growth potential selected from the group consisting of: faster growth rate, slower growth rate, larger biomass, and smaller biomass] as compared to an untransformed plant of the same species.

Claim 9. (amended) The isolated polynucleotide [nucleotide sequence] according to claim 2 characterized in that the nucleotide sequence is [derived] obtained from a bromegrass plant.

Claim 11 has been cancelled.

Claim 12. (amended) A DNA expression cassette characterized in that said DNA expression cassette comprises the polynucleotide [nucleotide sequence] according to claim 2, operably linked to a promoter.

Claim 13. (amended) A construct characterized in that the construct comprises [a vector and the nucleotide sequence according to claim 2, or] the DNA expression cassette according to claim 12.

Claim 14 has been cancelled.

Claim 15. (amended) The construct according to claim [14] 13 characterized in that said promoter is selected from the group consisting of[:] a constitutive promoter, an inducible promoter, an organ specific promoter, [a strong promoter, a weak promoter,] and a stress [induced] inducible promoter.

Claim 19. (amended) The transgenic plant according to claim 18 characterized in that said transgenic plant is a species selected from the group consisting of[:] canola, flax, and potato.

Claim 20. (amended). A method of genetically modifying a plant, characterized in that the method comprises the steps of:

(a) introducing into a plant cell capable of being transformed [and regenerated into a whole plant] a construct comprising, in addition to [the] DNA sequences required for transformation and selection in plants, [a] the polynucleotide [nucleotide sequence] according to claim 2, operably linked to a promoter;

(b) regenerating [recovery of] a transgenic plant from the transformed plant cell [which] wherein the transformed plant contains said nucleotide sequence; and

(c) expressing the nucleotide sequence in cells of the transformed plant.

Claim 21. (amended). The method according to claim 20 characterized in that said plant exhibits an [altered stress tolerance and / or altered growth potential] increased tolerance to an abiotic stress compared to an untransformed plant of the same species.

Claim 22. (amended). The method according to claim 21 characterized in that said plant exhibits an increased tolerance to the abiotic stress [altered stress response] selected from the group consisting of: increased tolerance to] heat, [increased tolerance to] cold; [increased tolerance to] frost, [increased tolerance to] and drought, [increased tolerance to flood, increase resistance to pests, increased resistance to disease] as compared to an untransformed plant of the same species.

Claim 23. (amended). [A] The method according to claim 20 characterized in that said plant exhibits faster germination, faster seedling emergence or an earlier maturity [one or more growth characteristics that are altered compared to an unmodified plant, the growth characteristics selected from the group consisting of: faster growth rate, slower growth rate, larger biomass and smaller biomass] as compared to an untransformed plant of the same species.

Claim 24. (amended). The method according to claim 20 characterized in that said nucleotide sequence is oriented in a sense direction relative to [a] the promoter.

Claims 25-27, and 31-52 have been cancelled.

Applicants authorized amendment to claims 2, 7-9, 12-13, 15, 19-22, and 23-24 to remove 35 U.S.C. 112, 1st and 2nd paragraph related issues. Applicants also authorized to cancel claims 3, 6, 11, 14, 25-27, and 31-52.

The above amendments were made to obviate potential issues under 35 U.S.C. 112, 1st and 2nd paragraphs.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod Kumar whose telephone number is (571) 272-4445. The examiner can normally be reached on 8.30 a.m. to 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAVID H. KRUSE, PH.D.
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "David H. Kruse", written in a cursive style.